CLAIMS

1. Process for management of a digital storage unit (2) divided into sectors, especially in view of its backup, characterized by the fact that it comprises the stages that consist in:

- creating a first table (M1), each element of which corresponds to one sector of the storage unit;
- initializing said first table;
- during a first modification of a sector after said initialization, modifying the element of the first table corresponding to this sector;
- not modifying an element of the first table during a modification of the sector that corresponds to it if the element has already been modified;
- reinitializing said first table during the occurrence of a first predetermined event.

2. Process according to claim 1, wherein the creation and initialization of said first table takes place during the formatting of the storage unit.

3. Process according to any of claims 1 and 2, wherein reinitialization of said first table takes place during a complete backup of the storage unit.

4. Process according to any of claims 1 and 2, wherein reinitialization of said first table takes place during an incremental backup of the storage unit.

5. Process according to any of claims 1 to 4, comprising the stage consisting in creating and keeping a copy (T1) of said first table, and in reinitializing said copy during the occurrence of a second predetermined event.

6. Process according to claim 5, wherein reinitialization of said copy takes place during a partial backup of the storage unit.

7. Process according to any of claims 1 to 6, comprising the stages that consist in:

- creating a second table (M2), each element of which corresponds to one group of sectors of the storage unit;
- initializing said first table;
- during a first modification of one sector of a group of sectors after said initialization, modifying the element of the second table corresponding to this group of sectors;
- not modifying an element of the second table during a modification of one sector of a group of sectors that corresponds to it if the element has already been modified;
- reinitializing said second table during the occurrence of said first predetermined event.

8. Process according to claim 7, wherein the creation and initialization of said second table takes place during the formatting of the storage unit.

9. Process according to any of claims 7 and 8, wherein the reinitialization of said second table takes place during a complete backup of the storage unit.

10. Process according to any of claims 7 and 8, wherein reinitialization of said second table takes place during an incremental backup of the storage unit.

11. Process according to any of claims 7 to 10, comprising the stage consisting in creating and keeping a copy (T2) of said second table, and in reinitializing said copy during the occurrence of a second predetermined event.

12. Process according to claim 11, wherein the reinitialization of said copy takes place during a partial backup of the storage unit.

13. Process according to any of claims 1 to 12, wherein said first table is created on said storage unit.

14. Process according to any of claims 7 to 13, wherein said second table is created in the read-write memory in the controller of said storage unit.

15. Process for complete or incremental backup of a digital storage unit (2) divided into sectors, wherein the storage unit is managed by a process according to any of claims 1 to 14, and wherein it comprises the stages consisting in:

- saving the indicated sectors as modified in said first table one after the other;
- reinitializing as the elements of said first table correspond to the saved sectors.

16. Process for partial backup of a digital storage unit (2) divided into sectors, wherein the storage unit is managed by a process according to any of claims 5, 6, 11 and 12, and wherein it comprises the stages consisting in:

- saving the indicated sectors as modified in said first table one after the other;
- reinitializing as the elements of the copy of said first table correspond to the saved sectors.

17 - Controller (4) of the digital storage unit divided into sectors, wherein it is arranged to implement a process according to any of claims 1 to 16.

(57) Abstract: The invention relates to a process for management of a digital storage unit (2) divided into sectors, especially in view of its backup. This process comprises the stages that consist in: creating a first table (M1), each element of which corresponds to one sector of the storage unit; initializing said first table; during a first modification of a sector after said initialization, modifying the element of the first table corresponding to this sector; not modifying an element of the first table during a modification of the sector that corresponds to it if the element has already been modified; reinitializing said first table during the occurrence of a first predetermined event.